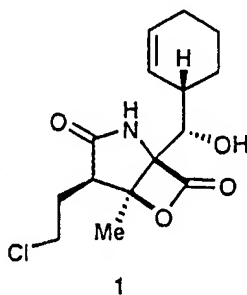


ABSTRACT OF THE DISCLOSURE

A simple and effective stereocontrolled synthesis of salinosporamide A (**1**)



has been developed which follows the pathway outlined in the Figure. The process, the first total synthesis of salinosporamide A, is capable of providing the compound in substantial quantities for further biological studies. In addition to the method of Scheme I, the present invention also includes several novel synthetic intermediate compounds, several intermediate steps of the preferred synthetic process; and the uses of these compounds in the preparation of synthetic derivatives of the compound Salinosporamide A. Salinosporamide A is of special interest as a synthetic target because of its protein *in vitro* cytotoxic activity against many tumor cell lines (IC₅₀ values of 10 nM or less).